

CLAIMS

Having specially detailed the nature of the present invention and the way of putting it into practice, we lay claim to the exclusive property and right of:

1. A transfer layer of liquid fluids to be applied in absorbent articles of personal use, as for instance disposable diapers, of special characteristics, as it comprises at least one top layer of predominantly hydrophobic fibrous material and at least one bottom layer of predominantly hydrophilic material which are united with one another in lines building channels of liquid distribution and transfer, which form peaks between every pair of adjacent channels where both superposed layers have a higher transversal thickness, while every channel resulting between adjacent peaks forms a valley where both layers have a lower transversal thickness.
2. A transfer layer according to claim 1 of special characteristics, as the mentioned peaks define zones of superficial liquid distribution to the mentioned valleys.
3. A transfer layer according to claim 1 of special characteristics, as the thickness of the top layer diminishes from peaks to valleys from 0.6 – 10 mm or less to 0.1 – 0.4 mm.
4. A transfer layer according to the claims 1, 2 or 3 of special characteristics, as in the mentioned peaks the fiber density in the transfer layer is lower than the fiber density in the parts which form the mentioned channels.
5. A transfer layer according to claim 4 of special characteristics, as in the peaks the density is between 0.03 and 0.2 g/cm³ while in the valleys it is between 0.18 and 0.35 g/cm³.

6. A transfer layer according to any of the preceding claims of special characteristics, as in the parts that form the mentioned channels, the top layer of the transfer layer has a lower hydrophobicity than in the peaks of the mentioned transfer layer.
7. A transfer layer according to any of the preceding claims of special characteristics, as the coefficient of hydrophobicity in the top layer of the transfer layer decreases from the peaks to the mentioned channels.
8. A transfer layer according to any of the preceding claims of special characteristics, as the mentioned top and bottom layer together define the said transfer layer like a transfer layer with a unidirectional flow of fluids.
9. An article for the absorption and retention of liquid fluids, as for instance a diaper, sanitary napkin or similar product, which includes a transfer layer of fluids according to any of the preceding claims, of special characteristics, as it comprises a cover which is permeable to fluids and destined to be in contact with the user's skin, providing below said cover the mentioned transfer layer of liquid fluids followed beneath by an absorbent core which absorbs and retains these liquids, where the mentioned transfer layer has the said channels of liquid distribution and transfer in contact with the mentioned permeable cover.
10. An article according to claim 9, of special characteristics, as the mentioned top and bottom layers together form the mentioned transfer layer like a unidirectional transfer layer of fluids that pass through the permeable cover to the absorbent core.